

# **EXHIBIT 220**

## Curling, Donna v. Raffensperger, Brad

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1 IN THE UNITED STATES DISTRICT COURT  
2 FOR THE NORTHERN DISTRICT OF GEORGIA  
3 ATLANTA DIVISION

4 DONNA CURLING, et al.,

5 Plaintiffs,

6 CIVIL ACTION

7 vs.

FILE NO.: 1:17-CV-2989-AT

8 BRAD RAFFENSPERGER, et al.,

9 Defendants.  
10 -----  
11  
12

13 REMOTE DEPOSITION OF

14 DR. PHILLIP STARK

15 December 16, 2022

16 1:00 p.m.  
17

18 (All attendees appeared remotely via  
19 videoconferencing and/or teleconferencing)  
20  
21

22  
23 Inger Douglas

24 CVR No. 7481

25 CCR No. 5166-3765-6508-0064

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1 concern your view on audits and a purported vulnerability  
2 called DVSorder. Is that generally accurate?

3 A Yes, sir. A little bit of specific information about  
4 the audit of the Secretary of State's contest.

5 Q Okay. All right. So if you'll scroll maybe to  
6 paragraph five, this is -- let's see. I think it's the third  
7 page of the declaration.

8 A Yes, sir.

9 Q You state there, "No audit can reliably determine  
10 whether BMDs altered enough votes to change who appeared to  
11 win." Do you see that?

12 A Yes, sir.

13 Q Okay. So do I understand this correctly to mean that  
14 in your opinion, even if the State did everything, you know,  
15 precisely as you recommend as far as procedure in here that the  
16 audit would essentially be worthless because it's -- the  
17 election was conducted on BMDs; is that accurate?

18 A I've -- it's a bit of an overstatement. I wouldn't  
19 say it's entirely worthless. But it couldn't limit the risk  
20 that an incorrect electoral outcome would be certified because  
21 there are ways in which the outcome could be altered that no  
22 audit could detect. In particular, malware or malfunctioning  
23 or misconfiguration of BMDs could cause the BMDs to print  
24 different votes from what the voters actually selected, and  
25 there would be no way for an audit to detect that that

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1 happened.

2 Q Okay. So the point is that you can have an audit,  
3 but it wouldn't be risk-limiting; is that accurate?

4 A Yes, sir. There are aspects of the election that you  
5 could check by auditing. But ultimately, you could not check  
6 the correctness of the outcome of the election.

7 Q Okay. So there is still some value in doing those  
8 audit procedures even if you're utilizing a BMD, right?

9 A If they're done correctly, yes.

10 Q Okay. And is there some value in utilizing audit  
11 procedures more generally -- strike that. Is there some value  
12 in utilizing audit procedures generally even if it might not  
13 align to a statewide, jurisdiction-wide, risk-limiting audit?

14 A There is some value and there's also -- there is also  
15 some danger in that it's an invitation to draw erroneous  
16 conclusions. In particular, the Secretary of State's Office  
17 has advertised that these audits have demonstrated that the  
18 equipment functioned correctly, that the results are accurate,  
19 and that the reported winners really did win. And the audits  
20 don't, in fact, show those things. So I think that there's a  
21 danger of misinterpreting the result of applying some of these  
22 procedures to an untrustworthy paper trail.

23 Q Okay. And so then, in paragraph six you also -- what  
24 I gather in this paragraph, you also state the opinion that  
25 essentially even a hand-marked paper ballot, risk-limiting

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1 audit in Georgia would be insufficient, right?

2 A Absent some changes to procedures; in particular,  
3 around the security -- physical security of the voted ballots  
4 and physical accounting for ballots, checks of chain of  
5 custody, and things of that kind.

6 Q Okay. But you specifically say in the last sentence  
7 that, "Thus, any audit that Georgia might perform cannot  
8 protect against the possibility that the Coffee County breach  
9 resulted in changed election outcomes in Coffee County or other  
10 counties," right?

11 A Yes, sir. But there's a first sentence about the  
12 lack of physical accounting controls, et cetera. If those  
13 controls were there, then my conclusion in the second sentence  
14 would be different.

15 Q Okay. And we'll get to those controls here. I do  
16 want to note -- go briefly to paragraph eight.

17 A Yes, sir.

18 Q You say basically you haven't had adequate time to  
19 digest the details nor to search exhaustively, right?

20 A Yes, sir.

21 Q And then, you go on to provide plenty of additional,  
22 you know, opinion testimony on this. But what exactly have you  
23 reviewed in relation to risk-limiting audits that you were  
24 relying on for this declaration?

25 A I have the PowerPoint slides from a presentation

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1 given to local election officials, a couple of webpages on the  
2 Secretary of State's website relating to the audit and the  
3 audit results, a quick look at some of the documentation of the  
4 Arlo software which I think I referred to in this declaration.  
5 Since filing this declaration, I've had a chance to look at  
6 some of the underlying data that the Secretary of State posted  
7 to the website, the batch subtotals and things like that.

8 Q So you...

9 A And -- oh, and I'm sorry. Forgive me. And then, the  
10 declarations that I cite in this declaration of people who  
11 observed the audit procedure on the ground in a couple of  
12 counties.

13 Q Okay. So it seemed to me, and correct me if I'm  
14 wrong, that the items you referenced are either attached in the  
15 appendix to this declaration or are linked within the  
16 declaration, right?

17 A Yes, sir.

18 Q Okay. And I'm talking about with respect to your  
19 risk-limiting audit opinion, right?

20 A Yes, sir.

21 Q Okay. And just to clarify on a statement you just  
22 made, so you provided and submitted this declaration before you  
23 reviewed the publicly available information on the Secretary's  
24 website? Did I hear that correctly?

25 A Before I had started doing exploratory data analysis

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1 on the batch reports from the thousands and thousands of  
2 batches that were there in the ZIP file.

3 Q Okay.

4 A I had not done any data analysis when I -- when I  
5 finished this report. I started the data analysis then.

6 Q Okay. So in paragraph ten, you say, "To the best of  
7 my knowledge, there was no mandatory ballot accounting, poll  
8 book reconciliation, eligibility auditing, chain of custody  
9 checks, or other measures to ensure the paper trail was  
10 complete and intact." Do you see that?

11 A Yes, sir.

12 Q Okay. And that's based off of what you just said you  
13 reviewed, i.e., the appendix or things that are linked in this  
14 declaration, right?

15 A Yes, sir. And also, a lay reading of some Georgia  
16 regulations around the canvass.

17 Q Okay. Which regulations did you read?

18 A I'm not going to recall it by number. I'm sorry. It  
19 was a 2019 statute.

20 Q 2019 statute?

21 A I believe so.

22 Q Okay. So you -- did you review the statute that was  
23 part of House Bill 316 requiring risk-limiting audits?

24 A I'm sure I did once upon a time, but I have not  
25 refreshed my memory of that. And I didn't read it before

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1 A I'm not, but that's true in most places.

2 Q Okay. And with respect to the poll book  
3 reconciliation, you're aware that that's required as part of  
4 the tabulation process in Georgia, right?

5 A No, I'm not aware of that. My understanding -- and  
6 I'm not an expert on law. But my reading of that regulation or  
7 statute was that it doesn't happen at the time of tabulation;  
8 that it is required to happen within something like 30 days  
9 after the election.

10 Q Okay. So you're not doubting me that that is, in  
11 fact, a requirement, right?

12 A I have no reason to doubt whether it's a requirement.  
13 I would have reason to doubt whether it's enforced, given the  
14 number of ballots or ballot scans that were discovered after  
15 the 2020 election never to have been uploaded into the system  
16 in the first machine tabulation, and given another omission. I  
17 can't recall which county it was in here where some -- some  
18 number of the Cobb County memory card hadn't been uploaded into  
19 the voting system. That's in paragraph 12.

20 Q Okay. So -- and this is the distinction that I'm  
21 trying to make sure I understand. Are you offering an opinion  
22 as to whether state law or regulation itself is adequate or  
23 that based on observation of county procedures under such law  
24 or regulation that they're not adhering to a regulation?

25 A So I'm not an attorney. I won't pretend to be able



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1 to interpret the law. But regardless of what the law says, it  
2 seems that this isn't happening in practice, at least not that  
3 well.

4 Q Okay. Have you ever seen a polling place recap form?

5 A A polling place what form?

6 Q Recap form?

7 A No, sir.

8 Q Okay. Would you have any reason to doubt me that  
9 these are standard forms compiled as part of the tabulation  
10 process?

11 A I'm not familiar with that -- with the term "recap  
12 form". It's possible that I have seen such a form but don't  
13 know it by that name. But I have no reason to doubt what  
14 you're telling me.

15 (Defendant's Exhibit No. 3 was identified.)

16 BY MR. MILLER:

17 Q Okay. And I'm going to mark another exhibit for you  
18 here. And just let me know when you see it on your end.

19 A I have it.

20 Q Okay. Have you seen this regulation before?

21 A No, sir.

22 Q Okay. And you see at the top it says 183-1-12-.12?

23 A Yes, sir.

24 Q And it's entitled Tabulating Results, right?

25 A Yes.

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1 MR. MILLER: Yeah. I apologize for that.

2 BY MR. MILLER:

3 Q You see there the first bullet? "The check-in and  
4 check-out clerk should refer to the appropriate documentation  
5 to verify the chain of custody of each secure container prior  
6 to removing it from the check-in and out station."

7 A Yes, sir, I see that.

8 Q Okay. And it talks there specifically about  
9 verifying the seals on the container with the check-in and out  
10 clerk before signing the chain of custody form.

11 A Yes, sir.

12 Q Okay. So you're aware that during the audit process,  
13 state regulation and the Secretary's directives require the  
14 ballots to be sealed when they arrive at the location where the  
15 audit is occurring and to be unsealed and resealed as each  
16 container is checked out, right?

17 A You told me that they're required to be sealed in the  
18 polling place, and this says that the seal should be checked  
19 when they're opened again for the audit. Yes.

20 Q Okay. And then, after the audit of a particular  
21 container or a tally of a particular container -- if you'll  
22 scroll with me to Page 62? You see there that, "Upon check-in,  
23 the check-in and out clerk will have the total number of  
24 ballots in the batch manifest and is comparing that to the  
25 audit team's total number of ballots counted"?

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1 MR. BROWN: Object to the form.

2 THE WITNESS: I'm sorry. I see batches selected on  
3 that screen. Can you point me to...

4 BY MR. MILLER:

5 Q Oh, I'm sorry. The next page, yeah. Page 62. I  
6 know they get a little -- as you -- because these are  
7 landscape, I think sometimes it wants you to be on the next  
8 page.

9 A Yes.

10 Q Okay. And you see there on the second bullet point  
11 it directs the check-in and out clerk to compare with the  
12 counters for that particular batch the total number of ballots  
13 they counted versus the total number of ballots in the batch  
14 form -- strike that -- in the batch from the ballot manifest?

15 MR. BROWN: I'm going to object to all of these. If  
16 you want to know why, Kerry, you can ask me.

17 THE WITNESS: I see the check-in bullet item, and, in  
18 fact, the sub-bullet is one of the things that really  
19 concerned me about this procedure in that if there is a  
20 discrepancy, it's left up to the election superintendent  
21 to decide whether to investigate it. And Arlo itself  
22 doesn't accept -- my understanding is that it only expects  
23 an input of the number of valid votes tabulated for each  
24 candidate in a batch, not the number of undervotes or  
25 invalid ballots or the total number of ballots in the

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1 A Yes, sir.

2 Q Okay.

3 A Except it's -- risk-limiting audit is a risk-limiting  
4 audit in name rather than in fact.

5 Q Okay. And that is because of the two issues we  
6 discussed earlier; because they aren't hand-marked paper  
7 ballots and because of general procedural observations you were  
8 making, right?

9 A Well, there's another thing that I mentioned as well,  
10 which is in order to limit the risk that an incorrect outcome  
11 will be certified, the audit has to have the ability to correct  
12 the outcome if the outcome is wrong. A risk-limiting audit is  
13 supposed to correct the outcome by conducting a full hand count  
14 of the trustworthy paper trail. Again, I'm not an attorney,  
15 but my understanding of the Georgia statute around  
16 risk-limiting audits is that the audit does not have the legal  
17 power to correct the outcome even if it ends up becoming a full  
18 hand count that demonstrates that the original outcome was  
19 incorrect.

20 Q And that's your understanding based on a statute that  
21 I think you testified earlier you read some time ago, right?

22 A Yes, sir. And I'm -- again, I'm not an attorney.  
23 But my understanding is that only a recount can change the  
24 outcome in Georgia, and that recounts by default, absent a  
25 judge's order, are machine recounts rather than hand recounts.

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1 A I'm sorry. I did testify that I did not, yes.

2 Q That -- thank you for clarifying that. And -- but I  
3 understood you testified that Mr. Skoglund and Dr. Haldeman  
4 did?

5 A That's my understanding, yes.

6 Q Okay. And in their review, are you aware of any  
7 evidence that votes cast on that equipment were not cast as  
8 intended?

9 A I am not aware of any evidence that the machine  
10 misbehaved in practice in any way.

11 Q Okay. And are you aware of any evidence of machines  
12 in Coffee County or elsewhere in Georgia did not cast votes as  
13 intended subsequent to the unauthorized access in Coffee  
14 County?

15 A Could would be a little bit more specific? Are we  
16 talking about ballot marking devices? I mean, the issue with  
17 ballot marking devices is I'm not aware of any evidence that  
18 they printed selections other than what the voters intended.  
19 But the problem with ballot marking devices is that they don't  
20 generate any evidence of printing selections other than what  
21 the voters intended. So there's just a security gap there,  
22 which is one of my biggest concerns with the widespread  
23 reliance on BMDs. But I am not aware of any evidence of  
24 misbehavior of BMDs. I'm not aware of any evidence of  
25 misbehavior of the tabulators. I am aware of evidence of

1 procedural lapses of various kinds.

2 Q Okay. I think that satisfies my question there. And  
3 you're not offering an opinion that the incorrect winner was  
4 certified in any Georgia election, right?

5 A I'm offering no such opinion.

6 Q Okay.

7 A I would have no basis for any such opinion.

8 MR. MILLER: Okay. That's all the questions I have.

9 Mr. Brown or Mr. Cross may have some for you.

10 E X A M I N A T I O N

11 BY MR. BROWN:

12 Q Dr. Stark, Bruce Brown representing the Coalition  
13 Plaintiffs. Thank you for your testimony today. I just have a  
14 couple of questions. You testified as to when you started to  
15 put pen to paper on your declaration and -- but you also  
16 collected some documents in advance of that, correct?

17 A Yes, sir. I'm trying to think of specifically which  
18 ones, but I've been -- I've been following the developments in  
19 the case including attending the depositions that are referred  
20 to. And I was certainly collecting thoughts and making notes  
21 anticipating that I might be asked to write a supplementary  
22 declaration. But I didn't start to really draft it until  
23 approximately December 1. I believe that was, I think, the  
24 Thursday or Friday of that week.

25 Q Okay. And then, you -- and you participated or at

## DISCLOSURE

I, Inger Douglas, do hereby disclose pursuant to Article 10.B of the Rules and Regulations Council of Georgia that Veritext Legal Solutions was contacted by the party taking the deposition to provide court reporting services for this deposition and there is no contract that is prohibited by O.C.G.A. 15-14-37 (a) and (b) or Article 7.C of the Rules and Regulations of the Board for the taking of this deposition.

There is no contract to provide court reporting services between Veritext Legal Solutions or any person with whom Veritext Legal Solutions has a principal and agency relationship nor any attorney at law in this action, party to this action, party having a financial interest in this action, or agent for an attorney at law in this action, party to this action, or party having a financial interest in this action. Any and all financial arrangements beyond our usual and customary rates have been disclosed and offered to all parties.

This 16th day of December 2022.



Inger Douglas, CVR No. 7481

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Certified Court Reporter

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## CERTIFICATE

STATE OF GEORGIA

COUNTY OF FORSYTH

I, Inger Douglas, Certified Court Reporter, hereby certify that the foregoing pages numbered 2 through 59 constitute a true, correct, and accurate transcript of the testimony heard before me, an officer duly authorized to administer oaths, and was transcribed under my supervision.

I further certify that I am a disinterested party to this action and that I am neither of kin nor counsel to any of the parties hereto.

In witness whereof, I hereby affix my hand on this the 20th day of December 2022.



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Inger Douglas, CVR 7481

CCR 5166-3765-6508-0064

Certified Court Reporter



Dr. Philip Stark  
Curling v. Raffensperger  
#5625976  
December 16, 2022

E R R A T A S H E E T

1. PAGE – GLOBAL – CHANGE “Phillip” to “Philip” – only one “L”. This is my name and it is misspelled throughout the transcript. Please make a global change, including the title and headers and footers.

Reason: Spelling

2. PAGE – GLOBAL – Change “Marx” to “Marks” throughout.

Reason: Spelling

3. PAGE 8, LINE 24 – Change “and putting” to “including”

Reason: error

4. PAGE 12, LINE 22 – Change “To wonder whether it was true or just in fluster.”

To: “To wonder whether it was true or just bluster.”

Reason: error

5. PAGE 14, LINE 22 – Change “Haldeman” to “Halderman”

Reason: spelling

6. PAGE 15, LINE 9 – Change “Haldeman” to “Halderman”

Reason: spelling

7. PAGE 15, LINE 23 - Change “Limburg” to “Lenberg”

Reason: spelling

8. PAGE 16, LINES 3, 12, 16, 20 – Change “Limburg” to “Lenberg”

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Reason: spelling

9. PAGE 18, LINES 10, 15 – Change “Haldeman” to “Halderman”

Reason: spelling

10. PAGE 18, LINE 18 – Change “of this declaration” to “of his declaration”

Reason: error

11. PAGE 33, LINES 10 – 13 – Change "Moreover, if the steps that you pointed out in the -- regarding the recap form had, in fact, taken place, then this would appear to be redundant, not that redundant checks are -- aren't valuable."

To: "Moreover, if the steps that you pointed out in the -- regarding the recap form had, in fact, taken place, then this would appear to be redundant, not that redundant checks are -- aren't valuable."

Reason: clarify the record

12. PAGE 33, LINE 21 – Change ""Thirty-six is the ballot inventory tool of what you will generate?"

To: "Thirty-six is, "BALLOT INVENTORY TOOL WHAT YOU WILL GENERATE"?"

Reason: clarify the record

13. PAGE 34, LINE 4 – Change "Forty-four, the batch inventory tool?"

To: "Forty-four, the "BATCH INVENTORY TOOL"?"

Reason: clarify the record

14. PAGE 35 LINES 15-16 – Change "Okay. Fifty-nine, yeah. I see auditing process chain of custody."

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To: "Okay. Fifty-nine, yeah. I see, "AUDITING PROCESS CHAIN OF CUSTODY.""

Reason: clarify the record

15. PAGE 37, LINES 2-3 – Change "I'm sorry. I see batches selected on"

To: "I'm sorry. I see "BATCHES SELECTED" on "

Reason: clarify the record

16. PAGE 38, LINE 2 – Change "discover whether a discrepancy matters or the measured"

To: "discover whether a discrepancy matters for the measured"

Reason: Error

17. PAGE 39, LINES 3-10 – Change

"No, sir. I -- not specifically, but in general, the processes that are in place to ensure that every eligible voter has the opportunity to vote and no one who is not eligible, in fact, votes and those who are eligible to vote are given a ballot of the appropriate style that contains exactly those contests that they're eligible to vote in are all processes that are subject to some error and need to be vetted as part of an audit or as precursor to a risk-limiting audit."

To: "No, sir. I -- not specifically. But in general, the processes that are in place to ensure that every eligible voter has the opportunity to vote, that no one who is not eligible in fact votes, and those who are eligible to vote are given a ballot of the appropriate style that contains exactly those contests that they're eligible to vote in, are all processes that are subject to some error and need to be vetted as part of an audit or as precursor to a risk-limiting audit."

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Reason: clarify the record

18. Page 41, Lines 17-25 – Change

“such affirmative evidence. It -- currently, if we're talking about elections conducted not using, say, end-to-end cryptographically verifiable voting systems, but things that are more like traditional elections, the only way to have an election that generates affirmative evidence that the results are correct is to conduct that election using predominantly hand-marked paper ballots, ensure that only people who are eligible and everyone who is eligible has an opportunity to vote, keep -- so generate the paper trail in a way that is”

To: “such affirmative evidence. It ... currently, if we're talking about elections conducted not using, say, end-to-end cryptographically verifiable voting systems, but things that are more like traditional elections, the only way to have an election that generates affirmative evidence that the results are correct is to conduct that election using predominantly hand-marked paper ballots, ensure that only people who are eligible and everyone who is eligible has an opportunity to vote, keep ... So, generate the paper trail in a way that is”

Reason: clarify the record

19. PAGE 44, LINE 2 – Change “without reviewing how anybody voted.”

To: “without revealing how anybody voted.”

Reason: error

20. PAGE 48, LINES 3-4 – Change "Except it's -- risk-limiting audit is a risk-limiting audit in name rather than in fact."

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To: "Except its "risk-limiting audit" is a risk-limiting audit in name rather than in fact."

Reason: clarify the record

21. PAGE 48, LINES 23-25 – Change "But my understanding is that only a recount can change the outcome in Georgia, and that recounts by default, absent a judge's order, are machine recounts rather than hand recounts."

To: "But my understanding is that only a recount can change the outcome in Georgia, and that recounts--by default, absent a judge's order--are machine recounts rather than hand recounts."

Reason: clarify the record

22. PAGE 54, LINE 3 – Change "Haldeman" to "Halderman"

Reason: spelling

23. PAGE 54, LINE 9 – Change "machine" to "machines"

Reason: clarify the record

24. PAGE 54, LINE 15-21 – Change

"Could would be a little bit more specific? Are we talking about ballot marking devices? I mean, the issue with ballot marking devices is I'm not aware of any evidence that they printed selections other than what the voters intended. But the problem with ballot marking devices is that they don't generate any evidence of printing selections other than what the voters intended."

To: "Could you be a little bit more specific? Are we talking about ballot-marking devices? I mean, the issue with ballot-marking devices is ... I'm not aware of any evidence that they printed selections other than what the voters intended. But the problem with ballot marking devices is that they don't generate any evidence of printing selections other than what the voters intended."

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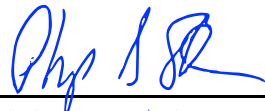
Reason: clarify the record

ACKNOWLEDGEMENT OF DEPONENT

I, Dr. Philip B. Stark, do hereby declare that I have read the foregoing transcript, I have made any corrections, additions, or changes I deemed necessary as noted above to be appended hereto, and that the same is a true, correct and complete transcript of the testimony given by me.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the following is true and correct.

This 19 day of January, 2023.

  
Philip B. Stark